What is claimed is:

1. An electro-mechanical wireline assembly for anchoring a wireline tool string in place in a well bore during underbalanced well conditions, the assembly comprising:

upper connecting means for connecting the assembly to a wireline leading to the well surface;

lower connecting means for engaging a wireline tool;

an outer mandrel connected to the lower connecting means;

an inner mandrel carried at least partly within the outer mandrel and capable of axial movement relative thereto;

a slip gripping assembly carried on the outer mandrel and including a plurality of gripping slips normally biased radially inward but movable radially outward for engaging a surrounding well bore and holding the wireline tool string in place in the well bore;

an electric motor assembly carried on the wireline assembly between the upper connecting means and the lower connecting means, the electric motor assembly being actuable by an electric current supplied from the well surface through the wireline to effect axial movement of the inner mandrel relative to the outer mandrel to expand the gripping slips in a radial direction between a start position and a set position;

switch means included as a part of the electric motor assembly for reversing the direction of axial movement of the inner mandrel relative to the outer mandrel to retract the gripping slips and return the slips to the start position; and

wherein the assembly further comprises back-up manual release means for manually retracting the gripping slips radially inward upon completion of wellbore operations.

2. The electro-mechanical wireline assembly of claim 1, wherein the lower connecting means is connected to a wireline tool selected from the group consisting of a well perforating gun assembly and a well production logging assembly.

3. The electro-mechanical wireline assembly of claim 2, wherein the slip gripping assembly includes at least three gripping slips located 120 degrees apart on an exterior surface of the outer mandrel.

4. The electro-mechanical wireline assembly of claim 3, wherein the electric motor assembly includes an electric motor and a screw driven by the electric motor to effect axial movement of the inner mandrel relative to the outer mandrel.

5. The electro-mechanical wireline assembly of claim 4, wherein the screw is drivable in either a forward or reverse direction by the application of electric current through the wireline from the well surface to the electric motor.

6. The electro-mechanical wireline assembly of claim 5, further comprising:

a collet housing including a plurality of downwardly extending collet fingers carried about the outer mandrel at an upper extent thereof, the collet housing being threadedly engaged to an outer motor housing.

7. The electro-mechanical wireline assembly of claim 6, wherein the outer motor housing is threadedly engaged to a coiled wire housing which, in turn, is threadedly engaged to the top adapter.

8. The electro-mechanical wireline assembly of claim 7, wherein the collet housing is initially retained in a running in position by at least one retaining dog carried in an opening provided on the outer mandrel adjacent the upper extent thereof.

9. The electro-mechanical wireline assembly of claim 8, wherein the inner mandrel is provided with a recess for receiving the at least one retaining dog, movement of the retaining dog into the recess serving to allow movement of the collet housing axially downward relative to the outer mandrel whereby the collet fingers can engage a collet latch housing.

10. The electro-mechanical wireline assembly of claim 9, wherein the collet latch housing is connected to a slip guide which underlies the gripping slips in the set position, the connection to the slip guide being severable by upward axial movement of the collet housing, thereby allowing the slip guide to be moved from beneath the gripping slips whereby the gripping slips can be returned to the start position.

11. An electro-mechanical wireline assembly for anchoring a perforating gun assembly in place in a well bore during underbalanced well conditions, the assembly comprising:

upper connecting means for connecting the assembly to a wireline leading to the well surface;

lower connecting means engaged to a perforating gun assembly including at least one wireline actuated perforating gun;

an outer mandrel connected to the lower connecting means;

an inner mandrel carried at least partly within the outer mandrel and capable of axial movement relative thereto;

a slip gripping assembly carried on the outer mandrel and including a plurality of gripping slips normally biased radially inward but movable radially outward for engaging a surrounding well bore and holding the wireline tool string in place in the well bore;

an electric motor assembly carried on the wireline assembly between the upper connecting means and the lower connecting means, the electric motor assembly being actuable by an electrical current supplied from the well surface through the wireline to effect axial movement of the inner mandrel relative to the outer mandrel to expand the gripping slips in a radial direction between a start position and a set position;

switch means provided as a part of the electric motor assembly and actuable to move the inner mandrel in a reverse axial direction in response to an electrical current supplied through the wireline from the well surface to retract the gripping slips and return the slips to the start position.

12. The electro-mechanical wireline assembly of claim 11, wherein the slip gripping assembly includes at least three gripping slips located 120 degrees apart on an exterior surface of the outer mandrel.

13. The electro-mechanical wireline assembly of claim 12, wherein the electric motor assembly includes an electric motor and a screw driven by the electric motor and connected to the inner mandrel to effect axial movement of the inner mandrel relative to the outer mandrel.

14. The electro-mechanical wireline assembly of claim 13, wherein the screw is drivable in either a forward or reverse direction by the application of electric current through the wireline from the well surface to the electric motor.

15. The electro-mechanical wireline assembly of claim 14, further comprising:

a collet housing including a plurality of downwardly extending collet fingers carried about the outer mandrel at an upper extent thereof, the collet housing being threadedly engaged to an outer motor housing.

16. The electro-mechanical wireline assembly of claim 15, wherein the outer motor housing is threadedly engaged to a coiled wire housing which, in turn, is threadedly engaged to the top adapter.

17. The electro-mechanical wireline assembly of claim 16, wherein the collet housing is initially retained in a running in position by at least one retaining dog carried in an opening provided on the outer mandrel adjacent the upper extent thereof.

18. The electro-mechanical wireline assembly of claim 17, wherein the inner mandrel is provided with a recess for receiving the at least one retaining dog, movement of the retaining dog into the recess serving to allow movement of the collet housing axially downward relative to the outer mandrel whereby the collet fingers can engage a collet latch housing.

19. The electro-mechanical wireline assembly of claim 18, wherein the collet latch housing is
connected to a slip guide which underlies the gripping slips in the set position, the connection to the slip guide being severable by upward axial movement of the collet housing and the collet latch

housing, ~~thereby allowing the slip guide~~ to be moved from beneath the gripping slips whereby the gripping slips can be returned to the start position.

20. The electro-mechanical wireline assembly of claim 19, wherein the slip guide includes upper collet fingers which are initially retained in a running in position by an interior surface of the collet latch housing and wherein the collet latch housing has an internal profile for receiving the slip guide collet fingers upon upward axial movement effected by the engagement of the collet housing collet fingers with the collet latch housing.

21. The electro-mechanical wireline assembly of claim 20, wherein the collet latch housing is initially connected to the slip guide by a plurality of shear screws, the shear screws being severable by upward tension exerted on the collet latch housing by the collet housing.

22. A method for anchoring a wireline perforating assembly in place in a well bore during underbalanced well conditions, the method comprising the steps of:

providing an electro-mechanical wireline assembly having upper connecting means for connecting the assembly to a wireline leading to the well surface;

connecting a wireline perforating assembly to a lower connecting means provided on the ~~electro-mechanical wireline assembly;~~

providing an outer mandrel connected to the lower connecting means;

providing an inner mandrel carried at least partly within the outer mandrel and capable of axial movement relative thereto;

providing a slip gripping assembly carried on the outer mandrel and including a plurality of gripping slips normally biased radially inward but movable radially outward for engaging a surrounding well bore and holding the wireline tool string in place in the well bore;

providing an electric motor assembly carried on the wireline assembly between the upper connecting means and the lower connecting means, the electric motor assembly being actuable by an electric current supplied from the well surface through the wireline to effect axial movement of the inner mandrel relative to the outer mandrel to expand the gripping slips in a radial direction between a start position and a set position;

providing switch means included as a part of the electric motor assembly for reversing the direction of axial movement of the inner mandrel relative to the outer mandrel to retract the gripping slips and return the slips to the start position;

running the electro-mechanical wireline assembly into position at a subterranean location within the well bore;

supplying an electrical current to the electric motor assembly to move the inner radial mandrel axially relative to the outer mandrel and thereby set the gripping slips;

actuating the perforating gun assembly by an electric current supplied from the well surface;

reversing the direction of movement of the inner mandrel relative to the outer mandrel by the application of an additional electrical current from the well surface through the wireline, said movement serving to allow the gripping slips to be retracted radially inward to the start position; and

retrieving the electro-mechanical wireline assembly and perforating gun assembly to the well surface.

23. The method of claim 22, wherein the electric motor assembly includes an electric motor and a screw driven by the electric motor to effect axial movement of the inner mandrel relative to the outer mandrel.

24. The method of claim 22, wherein the switch means is actuated to drive the screw in either a forward or reverse direction by the application of electric current through the wireline from the well surface to the electric motor.

25. The method of claim 24, wherein the electro-mechanical wireline assembly is further provided with back-up manual release means for

manually retracting the gripping slips radially inward upon completion of wellbore operations.

26. The method of claim 25, wherein the back-up manual release includes a collet housing including a plurality of downwardly extending collet fingers carried about the outer mandrel at an upper extent thereof, the collet housing being threadedly engaged to an outer motor housing, the outer motor housing being threadedly engaged to a coiled wire housing which, in turn, is threadedly engaged to the top adapter.

27. The method of claim 26, wherein the collet housing is initially retained in a running in position by at least one retaining dog carried in an opening provided on the outer mandrel adjacent the upper extent thereof.

28. The method of claim 27, wherein the inner mandrel is provided with a recess for receiving the at least one retaining dog, movement of the retaining dog into the recess serving to allow movement of the collet housing axially downward relative to the outer mandrel whereby the collet fingers can engage a collet latch housing.

29. The method of claim 28, wherein the collet latch housing is connected to a slip guide which underlies the gripping slips in the set position, the connection to the slip guide being severable by upward axial movement of the collet housing, thereby allowing the slip guide to be moved from beneath the gripping slips whereby the gripping slips can be returned to the start position.

30. The method of claim 29, wherein the slip guide includes upper collet fingers which are initially retained in a running in position by an interior surface of the collet latch housing and wherein the collet latch housing has an internal profile for receiving the slip guide collet fingers upon upward axial movement effected by the engagement of the collet housing collet fingers with the collet latch housing.

31. The method of claim 30, wherein the collet latch housing is initially connected to the slip guide by a plurality of shear screws, the shear screws being severable by upward tension exerted on the collet latch housing by the collet housing.